REMARKS

Claims 1-23, 25-31, and 36-39 were rejected under 35 U.S.C. 103(a) given Schmutz (U.S. 2001/0031621) ("Schmutz") in view of Durrant et al. (U.S. Patent No. 6,501,955). Claims 24, 34, and 35 were rejected under 35 U.S.C. 103(a) given Schmutz in view of Durrant and Fischer et al. (U.S. Patent No. 6,353,728) ("Fischer"). Claims 32 and 33 were rejected under 35 U.S.C. 103(a) given Schmutz in view of Durrant and Dinkins (U.S. Patent No. 5,633,876) ("Dinkins"). Claim 40 was rejected under 35 U.S.C. 103(a) given Schmutz in view of Durrant and Argyroudis (U.S. Patent No. 5,892,758) ("Argyroudis"). Claims 41-45 were rejected under 35 U.S.C. 102(e) given Durrant. These rejections are respectfully traversed and reconsideration requested.

Schmutz and Durrant comprise the primary references relied upon by the Examiner, with Durrant comprising a part of each and every rejection. Therefore, prior to addressing the merits of the Examiner's contentions, the applicant believes it may be helpful to first briefly describe and characterize the Durrant reference.

As disclosed in FIG. 1 of Durrant and the accompanying text, Durrant discloses the use of a repeater (20) that is located within the ordinary coverage range (11) of a given base station (10). Durrant further teaches that this repeater can serve to improve the data throughput rate available to mobile stations within that primary coverage area (11) (the area of so-called "additional coverage" denoted by reference numeral 21 indicates this area of improved throughput).

Pursuant to Durrant's teachings, however, this repeater, when available, is always on and always available. More particularly, Durrant makes no suggestion or teaching that the operation of the repeater be effected through any automated process and certainly does not suggest that the repeater can or should be activated or allocated on any selective basis. Durrant simply teaches that this repeater be on and available such that any client device within its coverage area can take advantage of its benefits.

The Examiner suggests in his comments that Durrant teaches "automatically determining whether" to allocate such a repeater and further that Durrant teaches that "when the mobile station is in an area that is remote from the base station the base station will

allocate the repeater to increase the data rate . . . ."[a] The Examiner bases these contentions upon Durrant's column 3, lines 2-11, column 4, lines 4-8, and column 4, lines 12-38. These sections read as follows:

> The invention provides in one aspect an RF signal repeater that repeats signals transmitted between a mobile unit and a base station and received at the RF signal repeater in a given cell of a cellular wireless network. To provide isolation between the signals received at the RF signal repeater and the repeated signals, the RF signal repeater frequency translates the repeated signals. The frequency translation may be on signals directed towards a mobile unit (forward link) and/or on signals directed towards the base station (reverse link).
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> The invention provides RF repeaters with the ability to enhance signal to noise and interference ratios over selected areas with a given cell, in particular to enable high data rate transmissions provided by modem wireless data services.
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> FIG. 1 is an illustration of a wireless communications cell site with additional high throughput coverage area provided by a RF signal repeater. A base station 10 has a defined coverage area or cell site 11. As signals propagate from the base station 10 through the cell 11, their strength will decrease. This drop in signal strength may adversely affect the realized data rates in current and proposed wireless data services. Two such wireless data services are GPRS and EDGE, both of which provide packet data capabilities for GSM cellular systems. For example, as GPRS is deployed, users will find that their realized data rate will decrease from 21.4 Kbps/time slot while located near a base station to 9.05 Kbps/time slot at cell sites remote from the base station. Indeed, it may be shown that less than 20% of a typical cell's area is estimated to support the peak data rate offered by GPRS. A similar situation will exist for future EDGE deployments with delivered data rates ranging from approximately 59.2 Kbps/time slot to 8.8 Kbps/time slot. Area 12 in FIG. 1 illustrates a region in cell 11 that would support the high data rate mode of a wireless service such as GPRS. A RF signal repeater 20 or a plurality of repeaters may be strategically added within the cell

[a] November 18, 2004 Office Action, page 5, section 4.

site 11 to enhance signal to noise and interference ratios in particular areas of the cell 11 to again provide the high data rate enjoyed in area 12. For example, the RF signal repeater 20 would receive the signals from the base station 10 and retransmit them as repeated signals, enabling the high data rate in region 12.

With all due respect, the applicant observes that there is nothing in the cited portions of Durrant that teach anything other than a repeater that is, when available, simply left on. In fact, any selective activation of such a repeater, which necessarily contemplates times when the repeater is off and unavailable, would appear to be contrary to the spirit of Durrant's teachings, as providing a repeater, but denying its capabilities to a given mobile station, would prohibit that mobile station from "enjoying" the higher supported data rates.

To ensure that these distinctions are clearly present in the independent claims of the present application, the applicant has revised both independent claims by this amendment and response. In claim 1, the base site is now clearly seen to support "automatically determining whether to selectively allocate a wireless relay resource to thereby at least attempt to increase a quality of service" for a wireless station, and the "communication controller" of claim 41 is now seen to clearly have a "relay resource activator," "such that a relay resource can be selectively activated by the communications controller to improve quality of service for" a wireless station.

As Durrant makes no provision or suggestion for such selective allocation/activation, and further as this aspect is missing from the remaining prior art references of record, the applicant respectfully submits that these references, either when considered alone or in combination (and regardless of how obvious or unobvious that combination may be), fail to equal the recitations of these claims. The applicant therefore respectfully submits that independent claims 1 and 41 may be passed to allowance.

The remaining claims are ultimately dependent upon on of the above-discussed independent claims. In addition, these claims introduce additional content that, particularly considered in context with the claim or claims from which they depend, constitutes incremental patentable subject matter. As the above discussion of the prior art references should be dispositive, however, and further for the sake of brevity, the applicant will not

burden this response with additional elaboration in that regard at this time. For all these reasons, the applicant respectfully submits that the dependent claims may be passed to allowance as well.

There being no other objections to or rejections of the claims, the applicant respectfully submits that claims 1 through 45 may be passed to allowance.

Respectfully submitted,

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